

## GROUNDFISH MANAGEMENT TEAM REPORT ON MANAGEMENT RECOMMENDATIONS FOR 2007-2008 GROUNDFISH FISHERIES—PART I

### ABC/OY TABLES

The Groundfish Management Team (GMT) has compiled a table of preliminary acceptable biological catch (ABC) and optimum yield (OY) values for the 2007 and 2008 management cycle, based on the results of new stock assessments and rebuilding analyses (Tables 1 and 2). As there are many issues that will affect both the range of OY values that are evaluated, and potentially the range of ABC values that are evaluated, the GMT expects to make a number of revisions and clarifications to these tables over the next several days, based on guidance received today.

For species that are not overfished, and for which there is new information from this assessment cycle, the GMT has presented the Council with a single ABC based on the base model for most assessments, with OY alternatives that do not exceed that ABC, but may be lower based on the alternative states of nature included in the assessment decision tables. This is based on the assumption that alternative ABC values should not exceed the ABC values provided in base assessment models. If the Council would like to consider a wider range of alternative ABCs, based on alternative states of nature that may assume higher productivity than the base model (and consequently ABC values that are higher than the base model), the GMT requests that such guidance be provided.

### Overfished Species

In previous management cycles, the GMT has provided low, medium and high OY alternatives that ranged around the probability of rebuilding by  $T_{max}$ . The alternatives in Tables 1 and 2 represent a departure from that practice, and the rationale for the alternatives provided are included in Attachment 1. As a result of the recent 9<sup>th</sup> Circuit Court decision regarding darkblotched rockfish, the GMT has included catch levels of zero for all overfished rockfish species for the explicit purpose of facilitating a broader range of analyses in the event that status quo levels of harvest are not acceptable. For overfished species that are not constraining the fishery under the current management regime, the OY alternatives include the minimum catches at which these species would become constraining. These OYs are based on the scorecard SPR harvest rates projections (which are the low OY alternatives for bocaccio, cowcod, Pacific ocean perch, and widow rockfish). In other words, these are the estimated incidental catches that would occur given the constraints on all fisheries under the current management regime. Lower OYs for these species would require additional management measures, which would presumably constrain fisheries above and beyond current levels.

### Identification of Fishing Communities

With regard to the analysis, the GMT is concerned that impacts to the fishing communities have not been defined. There are gear- and target species-specific fishing communities, which harvest some overfished stocks but not others as a result of the gear used, the range of the overfished stock, and/or the boundaries of the current Rockfish Conservation Areas (RCAs). Examples of these communities include: the longline dogfish fishery off Washington (which has bycatch of

yelloweye rockfish, but has low catches of other overfished rockfish), the midwater trawl chilipepper fishery off California (which catches bocaccio but not darkblotched rockfish and has low catches of other overfished rockfish), and the summer petrale fishery off Oregon (which catches some canary but has extremely low catches of yelloweye and overfished slope stocks). The GMT is concerned that if a wide interpretation is taken relative to economic costs and benefits, some of these smaller fishing communities may be overlooked. The GMT plans to develop more comprehensive lists of these fishing communities to provide to the analysts following this meeting.

### **Kelp Greenling**

The accepted kelp greenling assessment is geographically confined to Oregon. Due to the considerable uncertainty within the kelp greenling assessment, the GMT is not recommending setting an independent ABC/OY, but keeping kelp greenling within the "other fish" category. This species is currently managed under state regime. The state of Oregon manages kelp greenling using state harvest guidelines, length restrictions, and catch limits for both the recreational and commercial fisheries. Current Oregon catch levels fall below the OY suggested within the assessment, and any expansion beyond current catch levels is not anticipated to be considered by the state.

### **Gopher and Blackgill Rockfish**

The GMT recommends that gopher rockfish remain as part of the minor nearshore rockfish south complex and blackgill rockfish remain as part of the minor slope rockfish south complex. Details on the contribution of each these species to their respective alternative OYs is provided in Attachment 1.

### **SCHEDULE AND PROCESS FOR 2007-2008**

The GMT reviewed the revised schedule and process for 2007-2008 management (Agenda Item H.3.a Supplemental Attachment 3) and generally supports this revised schedule. However, the GMT requests that the Council consider changing the date of the GMT January 2006 meeting from January 9-10 to a date later in January or February. The current date does not allow enough time for the analyses and public meetings that are necessary for developing more refined 2007-2008 management alternatives that will be discussed at this GMT meeting. The GMT has identified three possible weeks for this meeting: January 23-27; February 6-10; February 13-17. The GMT recommends that the Council adopt a schedule that incorporates this change and provide guidance on which week is most appropriate.

### **GMT recommendations:**

1. Adopt the range of ABCs and OYs contained in Attachment 1.
2. Provide guidance for considering a wider range of alternative ABCs or OYs, if appropriate.
3. Adopt schedule and process for developing 2007-2008 groundfish harvest specifications and management measures modified by GMT recommendations.

TABLE 1. GMT-recommended alternatives for acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2007. (Overfished stocks in CAPS).

Stock	No Action Alternative				2007 Action Alternatives						
	2005 ABC	2005 OY	2006 ABC	2006 OY	2007 ABC	Alt 1 OY	Alt 2 OY	Alt 3 OY	Alt 4 OY	OWS <sub>07</sub>	Council OY a/
Lingcod - coastwide	2,922	2,414	2,716	2,414	6,706	6,706	6,492				
Columbia and US-Vanc. areas		1,694		1,694		5,830	5,830				
Eureka, Monterey, and Conception areas		719		719		876	662				
N. of 42 (OR & WA)		1,801		1,801		5,960	5,960				
S. of 42 (CA)		612		612		746	532				
Pacific Cod	3,200	1,600	3,200	1,600	3,200	1,600					1,600
Pacific Whiting (Coastwide)	269,545	269,069	To be determined in March 2006		To be determined in March 2007						
Sablefish (Coastwide)	8,368	7,761	8,175	7,634	6,210	4,634	5,998				
N. of 36 (Monterey north)		7,486		7,363		4,470	5,785				
S. of 36 (Conception area)		275		271		164	213				
PACIFIC OCEAN PERCH	966	447	934	447	900	0	84	397	506	741	
Shortbelly Rockfish	13,900	13,900	13,900	13,900	13,900	13,900					13,900
WIDOW ROCKFISH	3,218	285	3,059	289	5,334	0	322	447	903	1,352	
CANARY ROCKFISH b/	270	47	279	47	172	0	24	43	67		
Chilipepper Rockfish	2,700	2,000	2,700	2,000	2,700	2,000					
BOCACCIO	566	307	549	309	602	0	147	216	314	425	
Splitnose Rockfish	615	461	615	461	615	461					461
Yellowtail Rockfish	3,896	3,896	3,681	3,681	4,585	4,585					4,585
Shortspine Thornyhead - coastwide					2,488						
Shortspine Thornyhead - N. of 34deg27'	1,055	999	1,077	1,018		1,232	1,642				
Shortspine Thornyhead - S. of 34deg27'						423	846				
Longspine Thornyhead - coastwide	2,851	2,656	2,851	2,656	3,953						3,953
Longspine Thornyhead - N. of 34deg27' c/		2,461		2,461		2,242	2,989				
Longspine Thornyhead - S. of 34deg27' c/		195		195		482	941				
COWCOD - S. of 36 (Conception area)	5	2.1	5	2.1	17	0	3	7	9	11	
COWCOD - Monterey area	19	2.1	19	2.1	19	0	3	7	9	11	
DARKBLOTCHED	269	269	294	294	456	0	130	219	317	456	
YELLOWWEYE	54	26	55	27	47	0	12	17	21	24	
Nearshore Species											
Black Rockfish (WA)	540	540	540	540	540	540					540
Black Rockfish (OR-CA)	753	753	736	736	725	725					725
Minor Rockfish North	3,680	2,250	3,680	2,250	3,680	2,250	2,128	2,128			2,250
Nearshore Species				122			142	162			
Shelf Species		968		968		968					968
Slope Species		1,160		1,160		1,160					1,160
Remaining Rockfish North	1,612	1,216	1,612	1,216	Remaining rockfish ABCs are already incorporated into their respective minor rockfish complexes. The GMT is evaluating the most appropriate way to document harvest levels within the ABC.						
Bocaccio	318	239	318	239							
Chilipepper - Eureka	32	32	32	32							
Redstripe	576	432	576	432							
Sharpchin	307	230	307	230							
Silvergrey	38	29	38	29							
Splitnose	242	182	242	182							
Yellowmouth	99	74	99	74							
Other Rockfish North	2,068	1,034	2,068	1,034							
Minor Rockfish South	3,412	1,968	3,412	1,968	3,403	1,642	1,753	1,855	1,898		
Nearshore Species		615		615		413	515	558	666		
Shelf Species		714		714		714	714	714	714		714
Slope Species		639		639		626	626	626	626		626
Remaining Rockfish South	854	689	854	689	Remaining rockfish ABCs are already incorporated into their respective minor rockfish complexes. The GMT is evaluating the most appropriate way to document harvest levels within the ABC.						
Bank	350	263	350	263							
Blackgill	343	305	343	305							
Sharpchin	45	34	45	34							
Yellowtail	116	87	116	87							
Other Rockfish South	2,558	1,279	2,558	1,279							
California scorpionfish						137	219				
Cabezon (off CA only)	103	69	108	69	94	69					
Dover Sole	8,522	7,476	8,589	7,564	28,522	28,522	16,500				
English Sole	3,100	3,100	3,100	3,100	6,773	6,773					6,773
Petrale Sole (coastwide)	2,762	2,762	2,762	2,762	2,917	2,039	2,917				
Columbia and US-Vanc. areas						818	1,289				
Eureka, Monterey, and Conception areas						1,221	1,628				
Arrowtooth Flounder	5,800	5,800	5,800	5,800	5,800	5,800					5,800
Starry Flounder						464	618				
Other Flatfish	6,781	4,909	6,781	4,909	6,731	4,884					4,909
Other Fish	14,600	7,300	14,600	7,300	14,600	7,300					7,300
Kelp Greenling HG (OR)						No Fed HG	fed HG = state HG				

a/ Council OY is the Council's preferred harvest alternative for 2007.

b/ The canary rockfish OY alternatives assume a 50:50 commercial:recreational catch share. The OY varies by the commercial:recreational catch share due to the fact that the recreational fishery takes smaller fish and therefore has a greater "per ton" impact than the commercial fishery. Therefore, a higher OY would result from a higher commercial catch share.

TABLE 2. GMT-recommended alternatives for acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2008. (Overfished stocks in CAP

Stock	No Action Alternative				2008 Action Alternatives				
	2005 ABC	2005 OY	2006 ABC	2006 OY	2008 ABC	Alt 1 OY	Alt 2 OY	Alt 3 OY	Alt 4 OY
Lingcod - coastwide	2,922	2,414	2,716	2,414	5,853	5,853	5,683		
Columbia and US-Vanc. areas						5,025	5,025		
Eureka, Monterey, and Conception areas						828	658		
N. of 42 (OR & WA)						5,155	5,155		
S. of 42 (CA)						698	528		
Pacific Cod	3,200	1,600	3,200	1,600	3,200	1,600			
Pacific Whiting (Coastwide)	269,545	269,069	To be determined in March 2006		To be determined in March 2008				
Sablefish (Coastwide)	8,368	7,761	8,175	7,634	6,058	4,513	5,869		
N. of 36 (Monterey north)		7,486		7,363		4,353	5,661		
S. of 36 (Conception area)		275		271		160	208		
PACIFIC OCEAN PERCH	966	447	934	447	911	0	89	412	522
Shortbelly Rockfish	13,900	13,900	13,900	13,900	13,900	13,900			
WIDOW ROCKFISH	3,218	285	3,059	289	5,144	0	335	464	931
CANARY ROCKFISH b/	270	47	279	47	179	0	25	45	69
Chilipepper Rockfish	2,700	2,000	2,700	2,000	2,700	2,000			
BOCACCIO	566	307	549	309	618	0	150	219	316
Splitnose Rockfish	615	461	615	461	615	461			
Yellowtail Rockfish	3,896	3,896	3,681	3,681	4,510	4,510			
Shortspine Thornyhead - coastwide	1,055	999	1,077	1,018	2,463				
Shortspine Thornyhead - N. of 34deg27'						1,247	1,626		
Shortspine Thornyhead - S. of 34deg27'						419	837		
Longspine Thornyhead - coastwide	2,851	2,656	2,851	2,656	3,860				
Longspine Thornyhead - N. of 34deg27' c/		2,461		2,461		2198	2,989		
Longspine Thornyhead - S. of 34deg27' c/		195		195		470	941		
COWCOD - S. of 36 (Conception area)	5	2.1	5	2.1	17	0	4	7	9
COWCOD - N. of 36 (Monterey area)	19	2.1	19	2.1	19	0	4	7	9
DARKBLOTCHED	269	269	294	294	487	0	130	238	343
YELLOWWEYE	54	26	55	27	47	0	12	17	21
Nearshore Species									
Black WA	540	540	540	540	540	540			
Black OR-CA	753	753	736	736	719	719			
Minor Rockfish North	3,680	2,250	3,680	2,250					
Nearshore Species		122		122		122	142	162	
Shelf Species		968		968	968	968			
Slope Species		1,160		1,160	1,160	1,160			
Remaining Rockfish North	1,612	1,216	1,612	1,216					
Bocaccio	318	239	318	239					
Chilipepper - Eureka	32	32	32	32					
Redstripe	576	432	576	432					
Sharpchin	307	230	307	230					
Silvergrey	38	29	38	29					
Splitnose	242	182	242	182					
Yellowmouth	99	74	99	74					
Other Rockfish North	2,068	1,034	2,068	1,034					
Minor Rockfish South	3,412	1,968	3,412	1,968	3,403	1,855	1,898	2,006	
Nearshore Species		615		615		515	558	666	
Shelf Species		714		714		714	714	714	
Slope Species		639		639		626	626	626	
Remaining Rockfish South	854	689	854	689					
Bank	350	263	350	263					
Blackgill	343	306	343	306					
Sharpchin	45	34	45	34					
Yellowtail	116	87	116	87					
Other Rockfish South	2,558	1,279	2,558	1,279					
California scorpionfish						137	219		
Cabezon (off CA only)	103	69	108	69	94	69			
Dover Sole	8,522	7,476	8,589	7,564	28,442	28,442	16,500		
English Sole	3,100	3,100	3,100	3,100	5,701	5,701			
Petrale Sole	2,762	2,762	2,762	2,762	2,919	1,405			
Columbia and US-Vanc. areas						1,405			
Eureka, Monterey, and Conception areas						1,083	1,444		
Arrowtooth Flounder	5,800	5,800	5,800	5,800	5,800	5,800			
Starry Flounder						590	786		
Other Flatfish	6,781	4,909	6,781	4,909	6,731	4,884			
Other Fish	14,600	7,300	14,600	7,300	14,600	7,300			
Kelp Greenling HG (OR)						No Fed HG	Fed HG = State HG		

a/ Council OY is the Council's preferred harvest alternative for 2008.

b/ The canary rockfish OY alternatives assume a 50:50 commercial/recreational catch share. The OY varies by the commercial/recreational catch share due to the fishery takes smaller fish and therefore has a greater "per ton" impact than the commercial fishery. Therefore, a higher OY would result from a higher commercial catch share.

c/ The No Action alternative OYs for 2005 and 2006 were specified north and south of 36 deg. N latitude. The GMT recommends specifying longspine thornyhead C

## **The Basis for Recommended 2007-2008 Groundfish Optimum Yield (OY) Alternatives**

### Lingcod

- Alt 1: Coastwide OY is the sum of the OY for the assessment areas north and south of 43° N lat. The north (Columbia and U.S.-Vancouver areas) and south (Conception, Monterey, and Eureka areas) OYs projected from the assessment. No 40-10 adjustment for the south OY. OYs north and south of 42° N lat. at the California-Oregon border were re-apportioned by deriving the percentage of the 2005-06 OY estimated for the area between 42 and 43° N lat. (107 mt/719 mt) to the estimated OY N of 43° N lat. in 2007 to determine an estimated 2007 OY for the area between 42 and 43° N lat. (130 mt). This was added to the estimated 2007 OY for north of 43° N lat. to determine an appropriate OY for north of 42° N lat. and subtracted from the 2007 OY for south of 43° N lat. to determine an appropriate OY for south of 42° N lat.
- Alt 2: OYs, including re-apportioned OYs are determined the same way as in Alt 1, but the southern OY is adjusted using the 40-10 rule since the spawning biomass south of 43° N lat. is estimated to be less than B40% in 2007.

### Pacific Cod

No recommended change from status quo since there was no new assessment. The OY is reduced by 50% from the ABC since this is an unassessed stock.

### Pacific Whiting

No harvest specifications to be decided until March 2006 when a new assessment will be available.

### Sablefish

All OY alternatives break out the coastwide OY north and south of 36° N latitude using status quo proportions. Alternative methods for apportioning the OY were not considered because the STAR Panel recommended calculating coastwide biomass without including Conception area survey data.

- Alt 1: OY with the 40-10 adjustment using the low stock/production model ( $h=0.26$ ,  $Q=0.37$ ).
- Alt 2: OY with the 40-10 adjustment using the base model ( $h=0.34$ ,  $Q=0.33$ ).

### Pacific Ocean Perch

- Alt 1: Based on the fishing mortality ( $SPR=0.92$ ) associated with the scorecard estimated catch for 2005 projected forward.
- Alt 2: Conforms to the Council's rebuilding revision rule: re-estimated  $P_{max} = 80\%$ ;  $SPR$  harvest rate = 69.6%.
- Alt 3: OY estimated with a re-estimated  $P_{max}$  of 70%, which is the original rebuilding probability when the rebuilding plan was adopted ( $P_0$ ).
- Alt 4: OY under a re-estimated  $P_{max}$  of 50%.

### Shortbelly Rockfish

No change from status quo. The stock was last assessed in 1989 and is not exploited.

### Widow Rockfish

- Alt 1: Based on the fishing mortality associated with the scorecard estimated catch for 2005 projected forward.
- Alt 2: Current SPR harvest rate (93.6%) applied to the exploitable biomass. Re-estimated Pmax = 94%.
- Alt 3: Re-estimated Pmax = 80%, SPR harvest rate = 88.6%.
- Alt 4: Re-estimated Pmax = 60%.

### Canary Rockfish

All OY alternatives assume a 50:50 commercial:recreational catch share.

- Alt 1: OY under a re-estimated Pmax of 60%, which is P0. SPR harvest rate = 93.5%.
- Alt 2: Applies the SPR harvest rate of 88.7% from the rebuilding plan to the new estimated exploitable biomass.
- Alt 3: OY under a re-estimated Pmax of 50% and SPR harvest rate of 83.1%.

### Chilipepper Rockfish

No change from status quo. The stock is above B40% based on the 1998 assessment. The OY is reduced from the ABC as a bocaccio bycatch control mechanism.

### Bocaccio

- Alt 1: Based on the fishing mortality associated with the scorecard estimated catch for 2005, projected forward.
- Alt 2: OY under the old Pmax of 80%.
- Alt 3: Current SPR harvest rate (69.2%) applied to the exploitable biomass.
- Alt 4: Re-estimated Pmax = 50%.

### Splitnose Rockfish

No change from status quo. OY reduced from the ABC by 25% because the specifications are based on a data-moderate assessment in 1994.

### Yellowtail Rockfish

ABC/OY from the base case model in the new assessment. OY = ABC because the stock is above the target of B40%.

### Shortspine Thornyhead

The shortspine thornyhead ABC and OY alternatives use the base case model in the new assessment, which assume  $h = 0.6$  and  $q = 1.0$  with dome-shaped selectivity. The area OY apportionments are based on the model result indicating 66% of the current coastwide biomass occurs north of Pt. Conception and 34% south of Pt. Conception.

- Alt 1: OY includes a precautionary reduction of the base case OY due to the SSC conclusion that the assessment is marginally sufficient to estimate resource status. There is a 25% reduction in the OY north of Pt. Conception and a 50% OY reduction south of Pt. Conception due to the compounding uncertainty associated with the short duration and density of survey data south of Pt. Conception.
- Alt 2: OYs from the base case model without the precautionary reductions in alternative 1.

### Longspine Thornyhead

The longspine thornyhead ABC and OY alternatives use the base case model in the new assessment. The area OY apportionments are based on the proportion of the biomass north and south of Point Conception, based on the most recent slope survey data.

- Alt 1: OY includes a precautionary reduction of the base case OY because the stock assessment has the same data issues as the shortspine assessment. There is a 25% reduction in the OY north of Pt. Conception and a 50% OY reduction south of Pt. Conception.
- Alt 2: OYs from the base case model without the precautionary reductions in alternative 1.

### Cowcod

OY alternatives are derived from the new assessment of the stock south of 36° N latitude (Conception INPFC area). The same OY alternatives are recommended for the Monterey area north of 36° N latitude based on comparable catch histories in these two areas.

- Alt 1: Re-estimated  $P_{max} = 80\%$ .
- Alt 2: Re-estimated  $P_{max} = 70\%$ .
- Alt 3: Re-estimated  $P_{max} = 60\%$  ( $= P_0$ ).
- Alt 4: Re-estimated  $P_{max} = 50\%$ .

### Darkblotched Rockfish

- Alt 1: The specified OY in 2001.
- Alt 2: Based on the fishing mortality ( $F=0.0216$ ) associated with the scorecard estimated catch for 2005 projected forward.
- Alt 3: Current harvest rate ( $F = 0.032$ ) applied to the exploitable biomass.  $P_{max} = 100\%$ , SPR harvest rate = 100%.
- Alt 4: Estimated 2007 ABC. Re-estimated  $P_{max} = 97\%$ .

### Yelloweye Rockfish

- Alt 1: OY under the current Pmax of 90%. SPR harvest rate = 82.1%.  
Alt 2: Re-estimated SPR harvest rate (76.4%) applied to the exploitable biomass to maintain a Ptarget of 50%.  
Alt 3: Re-estimated Pmax = 80%; estimated SPR harvest rate = 71.7%.  
Alt 4: Re-estimated Pmax = 50%.

### Black Rockfish – WA

No change from status quo. OY = ABC because the stock is above the target of B40%.

### Black Rockfish – CA & OR

ABC/OY projected from the 2003 assessment. OY = ABC because the stock is above the target of B40%.

### Minor Rockfish North

The Remaining Rockfish and Other Rockfish categories are removed from the table since these species are already accounted for in the Minor Rockfish North complex.

### Nearshore Species

When black rockfish was originally removed from the northern minor nearshore rockfish OY, a ratio of black to blue rockfish catch was used to determine what proportion of that OY was attributable to black rockfish. However, due to the variability of blue rockfish catches, there is some concern that this ratio (92%:8% black to blue rockfish) under represents blue rockfish catch and therefore the resulting OY (without black rockfish). To account for this uncertainty (that is, a range of possible levels of black rockfish removal from the OY), three OY alternatives are presented.

- Alt 1: Status quo OY.  
Alt 2: Status quo OY + 20 mt.  
Alt 3: Status quo OY + 40 mt.

### Shelf Species

No change from status quo for the northern minor shelf species.

### Slope Species

No change from status quo for the northern minor slope species.



### Minor Rockfish South (Including Gopher Rockfish and Blackgill Rockfish)

The Remaining Rockfish and Other Rockfish categories are removed from the table since these species are already accounted for in the Minor Rockfish South complex.

The ABC for Minor Rockfish South is adjusted to account for the reassessment of blackgill rockfish and the new assessments for gopher rockfish and California scorpionfish in three ways. The status quo contribution of blackgill to the ABC (343 mt) was removed from the complex ABC and replaced with the new blackgill ABC/OY of 292 mt (based on the 2007-2008 average ABC/OY; 2007 = 294 mt, 2008 = 290 mt) for an overall reduction of 51 mt. The status quo contribution of gopher rockfish (97 mt) was removed and replaced with the new gopher ABC/OY of 302 mt (based on the 2007-2008 average ABC/OY; 2007 = 340 mt, 2008 = 264 mt) resulting in an overall increase of 205 mt. The status quo contribution for California scorpionfish (163 mt) was removed from the ABC as this species will now be managed under its own ABC/OY.

### Nearshore Species (Including Gopher Rockfish)

The Council adopted a southern minor nearshore rockfish species OY for 2003 of 541 mt. This OY was based upon the Groundfish FMP policy for specifying OY for unassessed species using 50% of recent landings, and was recalculated from the 2001-2002 OY of 662 mt using updated estimates of recreational and commercial harvest. For the 2004 southern minor nearshore rockfish species OY, an adjustment was made to account for removal of black rockfish; however, this adjustment started with the 2002 OY of 662 mt and not the 2003 OY of 541 mt. The resulting OY of 615 mt was adopted by the Council for the 2004, and the 2005-2006 management cycles. For the 2007-08 management cycle, the Minor Nearshore Rockfish South OY is corrected with the black removal of 47 mt taken from the more up-to-date 2003 OY of 541 mt, resulting in a value of 494 mt.

This initial value for the southern minor nearshore rockfish species OY then is adjusted to account for the new California scorpionfish and gopher rockfish assessments. The current contribution for California scorpionfish of 81.5 mt (based upon 50% of recent landings during 1994-1999) is removed from the combined OY in all four alternatives because it will have its own OY. (The proposed California scorpionfish OYs are addressed later in this section.) Because gopher rockfish cannot be managed separately from other nearshore rockfish species without significantly increasing bycatch and because of uncertainty over the assessment due to poor data quality, gopher rockfish is recommended to not be removed from the southern minor nearshore rockfish species OY, but instead have a point of concern set at a level determined appropriate to the adopted OY. The resulting alternatives for the southern minor nearshore rockfish that incorporate changes for California scorpionfish and gopher provided below.

- Alt 1: OY includes the current contribution for gopher rockfish (48.5 mt).
- Alt 1: OY determined by removing the current contribution for gopher rockfish (48.5 mt) from the OY and then increasing the OY by 50% of the new gopher ABC/OY of 302 mt (based on the 2007-2008 average ABC/OY; 2007 = 340 mt, 2008 = 264 mt).
- Alt 2: OY determined by removing the current contribution for gopher rockfish (48.5 mt) from the OY and then increasing the OY by 75% of the new gopher ABC/OY of 302 mt (based on the 2007-2008 average ABC/OY; 2007 = 340 mt, 2008 = 264 mt).

Alt 3: OY determined by removing the current contribution for gopher rockfish (48.5 mt) from the OY and then increasing the OY by the new gopher ABC/OY of 302 mt (based on the 2007-2008 average ABC/OY; 2007 = 340 mt, 2008 = 264 mt).

#### Shelf Species

No change from status quo for the southern minor shelf species.

#### Slope Species (Including Blackgill Rockfish)

The southern minor slope species OY is adjusted as follows in accordance with the new blackgill rockfish assessment. The status quo contribution of blackgill (305 mt) was removed from the complex and replaced with the new blackgill ABC/OY of 292 mt (based on the 2007-2008 average ABC/OY; 2007 = 294 mt, 2008 = 290 mt).

#### California Scorpionfish

The California scorpionfish assessment used a recreational catch data stream based upon Commercial Passenger Fishing Vessel (CPFV) logbook data expanded to total recreational catch using a proportion of CPFV to total recreational catch (based upon Marine Recreational Fisheries Statistics Survey catch history). The Council's Scientific and Statistical Committee approved this assessment, with the caveat that the ABC/OY from this assessment could only be related to recreational catch calculated in the same manner as this catch stream. CPFV logbook data, while valuable for stock assessment analyses, are not collected in as timely a manner as needed for inseason monitoring. Consequently, a method was derived with the assistance of the primary stock assessment author, Mark Maunder, to modify the ABC/OY from the assessment so that it could be tracked using California Recreational Fisheries Survey (CRFS) catch estimates. This method takes the recreational portion of the stock assessment ABC/OY, multiplies it by the CPFV proportion calculated from the MRFSS data, and then divides it using the proportion of CPFV catch observed in the 2004 CRFS data.

Both the original stock assessment ABC/OY and the modified stock assessment ABC/OY are provided as alternatives for California scorpionfish. Both alternatives are based upon the assessment model that includes sanitation district data. The first alternative provides the modified ABC/OY. The second alternative provides an ABC/OY of 219 mt based on an average of the 2007 and 2008 ABC/OYs from the stock assessment (2007 = 236 mt, 2008 = 202 mt).

- Alt 1: This ABC/OY of 137 mt was derived using the recreational portion from the ABC/OY (based on the 2007-2008 average; 2007 = 222.2 mt, 2008 = 191.0 mt), multiplying it times 53%, dividing it by 88%, and then adding this modified recreational portion to the commercial portion of the ABC/OY (based on the 2007-2008 average; 2007 = 13.4 mt, 2008 = 11.5 mt).
- Alt 2: The second alternative provides an ABC/OY of 219 mt based on an average of the 2007 and 2008 ABC/OYs from the stock assessment based upon the expanded CPFV logbook catch stream (2007 = 236 mt, 2008 = 202 mt).

#### Cabezon (off CA)

The ABC is recalculated based on the new assessment. The recommended ABC is the sum of the 2007-2008 average projected ABCs for the northern substock (71 mt) and southern substock (23 mt) calculated using the proxy F50% harvest rate. The status quo OY is recommended since the sum of the average OYs for the northern and southern substocks under the California default 60-20 rule approximates this value.

#### Dover Sole

ABC determined using the F40% proxy harvest rate (13,572 mt in the south and 14,950 mt in the north). OY = ABC since the stock is above the B40% target.

#### English Sole

ABC determined using the F40% proxy harvest rate. OY = ABC since the stock is above the B40% target.

#### Petrale Sole

ABC = sum of the north ABC of 1,397 mt and the south ABC/OY of 1,628 mt. OY is reduced from the ABC using the 40-10 reduction.

#### Arrowtooth Flounder

No change from status quo. ABC/OY based on the 1994 assessment.

#### Starry Flounder

ABC values for Starry flounder will be provided by the stock assessment author before the close of this meeting. Two OY alternatives are provided.

- Alt 1: Based on the combined area OYs from the base model in the stock assessment.
- Alt 2: Based on a 25% reduction of the combined area OYs from the base model in the stock assessment as a result of the 25% reduction for data poor stocks.

#### Other Flatfish

Recommend removal of the contribution from starry flounder. No other change from status quo recommended.

#### Other Fish (Including Kelp Greenling)

No change from status quo recommended for the Other Fish complex, other than considering a kelp greenling harvest guideline (instead of an OY due to uncertainty around the assessment).

- Alt 1: No federal kelp greenling harvest guideline.
- Alt 2: Federal kelp greenling harvest guideline equals the state kelp greenling harvest guideline.